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EXAMINER	
BECK, LERON	

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2483	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/588,482	WEDI ET AL.	
	Examiner	Art Unit	
	LERON BECK	2483	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 March 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *37-82* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *37-82* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *04 August 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in the European Patent Office (EPO) on February 12, 2004. It is noted, however, that applicant has not filed a certified copy of the 04003184.1 application as required by 35 U.S.C. 119(b).

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 8/04/2006, and 3/16/2009. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Based upon consideration of all of the relevant factors with respect to the claim as a whole, claim 37 and 67 are held to claim an abstract idea, and are therefore rejected as ineligible subject matter under 35 U.S.C. 101. The rationale for this finding is explained below:

4. A statutory "process" under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing. While

the instant claim recite a series of steps or acts to be performed, the claim neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process. For example, there is no apparatus mentioned neither in the preamble nor in the subsequent limitations for executing the method stated in the present application.

5. Dependent claims 38-51 and 68-74 respectively when analyzed as a whole are held to be patent ineligible under 35 U.S.C. 101 because the additional recited limitations fail to establish that the claims are not directed to an abstract idea, as detailed below: See above reasoning

Invoking - 35 USC § 112, 6th

6. The following is a quotation of the sixth paragraph of 35 U.S.C. 112:

> An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof

7. Claim 56, 59-65, and 80 invoke 35 USC § 112, 6th because the claim limitation meets the 3-prong test by using the phrase "means for" or "step for", the "means for" or "step for is modified by functional language, and the phrase "means for" or "step for" is not modified by sufficient structure, material, or acts for achieving the specified function. Therefore, the claim limitation is being treated under 35 U.S.C. 112, sixth paragraph.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claim 37-43, 51-58, and 66-82 are rejected under 35 U.S.C. 102 (b) as being anticipated by Meeker (US Patent 5313298).

10. **Regarding claim 37, Meeker discloses a method for encoding video data, comprising the steps of:**

dividing an image into blocks (Column 9, lines 1-39, Fig. 1, 2, 11, and 12, block based coding; Fig.1 shows the process of encoding a video image and an image data being divided into blocks)**, each block including a plurality of pixels (**column 9, lines 35-40)

transforming the pixels of a block into transform coefficients (Column 20, lines 4-20; Column 22, lines 39-54,Figure 11, element 404; Fig.11 shows a Discrete Cosine Transform (DCT)**, and**

quantizing the coefficients in accordance with predefined quantization intervals by mapping each coefficient value to a quantized coefficient value (Column 20, lines 16-35, Column 25, appendix, line 4, Fig. 11Column 11, lines 1-27; Given the broadest reasonable interpretation, the examiner interprets that Meeker teachings of “quantized coefficients”…and “a smaller set of different values”…in column 20, and “Random number data between 0 and 255”…in

column 25, and lines 7-10 in column 11 are equivalent to the instant applicant's " predefined quantization intervals by mapping each coefficient value to a quantized coefficient value" because according to Webster's dictionary, an interval is a set of real numbers with the property that any number that lies between two numbers in the set is also included in the set. Fig 11 shows that coefficients are being quantized by element 406)**, wherein the quantization are set in accordance with a predefined quantization curve** (See Fig. 3 and 4, Column 11, lines 1-27)**, said quantization curve being a non-linear curve having smaller quantization intervals for lower coefficient values** (See Fig. 3 and 4, Column 11, lines 1-27; Given the broadest reasonable interpretation, the examiner interprets when the curve has a decline, the curve represents intervals for lower coefficient values).

11. In regards to claim 38, Meeker discloses the method according to claim 37 (see explanation for clam 37)**, wherein the step size of the quantization intervals of said quantization curve increases for larger coefficient values** (See Fig. 3 and 4, Column 11, lines 1-27; Column 21, lines 52-65; Given the broadest reasonable interpretation, the examiner interprets when the curve has an incline, the curve represents intervals for larger coefficient values. With respect to column 21, lines 52-65, Meeker teachings of "Higher coefficients" and "quantization step size" both represent the teachings of the instant applicant's limitation when the curve increases).

12. In regards to 39, the method according to claim 37(see explanation for clam 37)**, wherein said quantization intervals increase in accordance with a piecewise linear curve, a root curve or a logarithmic curve for increasing coefficient values** (Column 4, lines 5-15; Meeker teachings of " logarithmic curves" are equivalent to instant applicant's teaching of a "logarithmic curve").

13. In regards to claim 40, the method according to claim 37 (see explanation for clam 37) **, wherein said predefined quantization curve being defined by parameters, and said quantized coefficient values together with said predefined parameters represent the encoded video data (**Column 9, lines 1-39, Fig. 1, 2, 11, and 12; Once the encoded image is split into portions of blocks, then it can be transformed by a transformation process such as DCT(see Column 20, lines 4-20; Column 22, lines 39-54,Figure 11, element 404; Fig.11 shows a Discrete Cosine Transform (DCT), then after transformation, there will be predetermined values that will begin the quantization process. The coefficients that are produced from the quantization process become the parameters for the curve (See Column 11, lines 1-27).

14. In regards to claim 41, the method according to claim 37(see explanation for clam 37)**, wherein said quantizing step comprises the steps of:**

weighting said coefficient values (Fig. 1, element 14 shows a local average value calculator as the means for weighting as in claim 56) **in accordance with said predefined quantization curve, and quantizing said weighted**

coefficient values by applying fixed quantization intervals (Column 10, lines 40-65; Given the broadest reasonable interpretation, once values have become a weighted average, they then become coefficients to be quantized. Column 11, lines 1-27; Once these coefficients are quantized, they the become part of a fixed interval for the curve. Meeks teachings of "values between 4 to 15"....is equivalent to instant applicant's "fixed interval" because the range 4-15 are the set of numbers of focus).

15. **In regards to claim 42, the method according to claim 41** (See explanation for claim 41), **wherein said fixed quantization intervals being quantization intervals of a regular interval size** (Column 11, lines 1-27; Meeker teachings of "...the value for mu for audio... is often 256 or thereabouts"... is equivalent to instant applicant's "regular interval size").

16. **In regards to claim 43, the method according to claim 41**(See explanation for claim 41)**, wherein said quantization curve being a piecewise linear curve, a root curve or a logarithmic curve** (Column 4, lines 5-20; Meeker teachings of "logarithmic curves (Characteristic)" are equivalent to instant applicant's teaching of a "logarithmic curve").

17. **In regards to claim 51, Meeker discloses the method according to claim 37** (see claim 37)**, wherein said method further comprises the step of predicting the block to be encoded based on a previously encoded block** (Fig. 11 and 12, Column 23, lines 1-68; Motion compensation predicts a block to be encoded based on a previously encoded block) **wherein said prediction**

step comprises a decoding step including a de-quantization step(Fig. 11 and 12; Meeker discloses decoder structure in the encoder in Fig. 12. Elements 408 of Fig 11, elements 508f and 508r of Fig. 12, all show de-quantization(inverse quantization))**, which applies said predefined quantization curve (**See Fig. 3 and 4, Column 11, lines 1-27) **in inverse manner to said encoded coefficients** (See Fig. 12, Meeker shows decoder (inverse manner) structure in the encoder)**.**

18. In regards to claim 52, Meeker discloses an encoder (See Fig. 11, element 400, fig. 12, element 500) **for encoding video data based on image blocks**(Column 9, lines 1-39, Fig. 1, 2, 11, and 12, block based coding; Fig.1 shows the process of encoding a video image and an image data being divided into blocks)**, each block including a plurality of pixels (**column 9, lines 35-40) **comprising:**

a transform unit (See fig. 11, element 404) **for transforming the pixels of a block into transform coefficients** (Column 20, lines 4-20; Column 22, lines 39-54,Figure 11, element 404; Fig.11 shows a Discrete Cosine Transform (DCT)**, and**

a quantizer (See Fig. 11, element 406)**for quantizing the transform coefficients in accordance with predefined quantization intervals by mapping each coefficient value to a quantized coefficient value**(Column 20, lines 16-35, Column 25, appendix, line 4, Fig. 11Column 11, lines 1-27; Given the broadest reasonable interpretation, the examiner interprets that Meeker

teachings of “quantized coefficients”...and “a smaller set of different values”...in column 20, and “Random number data between 0 and 255”...in column 25, and lines 7-10 in column 11 are equivalent to the instant applicant's " predefined quantization intervals by mapping each coefficient value to a quantized coefficient value” because according to Webster’s dictionary, an interval is a set of real numbers with the property that any number that lies between two numbers in the set is also included in the set. Fig 11 shows that coefficients are being quantized by element 406)**,, the quantization intervals are set in accordance with a predefined quantization curve**(See Fig. 3 and 4, Column 11, lines 1-27)**, said quantization curve being a non-linear curve having smaller quantization intervals for lower coefficient values**(See Fig. 3 and 4, Column 11, lines 1-27; Given the broadest reasonable interpretation, the examiner interprets when the curve has a decline, the curve represents intervals for lower coefficient values)**.**

19. Regarding claim 53, analyses are analogous to those presented for claim 38 and are applicable for claim 53.

20. Regarding claim 54, analyses are analogous to those presented for claim 39 and are applicable for claim 54.

21. Regarding claim 55, analyses are analogous to those presented for claim 40 and are applicable for claim 55.

22. **Regarding claim 56, analyses are analogous to those presented for claim 41 and are applicable for claim 56.**

23. **Regarding claim 57, analyses are analogous to those presented for claim 42 and are applicable for claim 57.**

24. **Regarding claim 58, analyses are analogous to those presented for claim 43 and are applicable for claim 58.**

25. Regarding claim 66, analyses are analogous to those presented for claim 51 and are applicable for claim 66.

26. In regards to claim 67, (See Fig. 12, Meeker shows decoder (inverse manner) structure in the encoder), therefore **analyses are analogous to those presented for claim 37 and are applicable for claim 67.**

27. In regards to claim 68, (See Fig. 12, Meeker shows decoder (inverse manner) structure in the encoder), therefore **analyses are analogous to those presented for claim 38 and are applicable for claim 68.**

28. In regards to claim 69, (See Fig. 12, Meeker shows decoder (inverse manner) structure in the encoder), therefore **analyses are analogous to those presented for claim 39 and are applicable for claim 69.**

29. In regards to claim 70, (See Fig. 12, Meeker shows decoder (inverse manner) structure in the encoder), therefore **analyses are analogous to those presented for claim 40 and are applicable for claim 70.**

30. In regards to claim 71, the method according to claim 70, wherein said parameters define the quantization curve applied to said quantized coefficient values during encoding ((Column 9, lines 1-39, Fig. 1, 2, 11, and 12; Once the encoded image is split into portions of blocks, then it can be transformed by a transformation process such as DCT(see Column 20, lines 4-

20; Column 22, lines 39-54,Figure 11, element 404; Fig.11 shows a Discrete Cosine Transform (DCT), then after transformation, there will be predetermined values that will begin the quantization process. The coefficients that are produced from the quantization process become the parameters for the curve (See Column 11, lines 1-27);

31. In regards to claim 72, (See Fig. 12, Meeker shows decoder (inverse manner) structure in the encoder), therefore **analyses are analogous to those presented for claim 41 and are applicable for claim 72.**

32. Regarding claim 73, analyses are analogous to those presented for claim 42 and are applicable for claim 73.

33. Regarding claim 74, analyses are analogous to those presented for claim 43 and are applicable for claim 74.

34. In regards to claim 75, (See Fig. 11 and 12, Meeker shows decoder (inverse manner encoder), therefore **analyses are analogous to those presented for claim 52 and are applicable for claim 75.**

35. In regards to claim 76, (See Fig. 11 and 12, Meeker shows decoder (inverse manner encoder), therefore **analyses are analogous to those presented for claim 53 and are applicable for claim 76.**

36. In regards to claim 77, (See Fig. 11 and 12, Meeker shows decoder (inverse manner encoder), therefore **analyses are analogous to those presented for claim 54 and are applicable for claim 77.**

37. In regards to claim 78, (See Fig. 11 and 12, Meeker shows decoder (inverse manner encoder), therefore **analyses are analogous to those presented for claim 55 and are applicable for claim 78.**

38. In regards to claim 79, (See Fig. 11 and 12, Meeker shows decoder (inverse manner encoder), therefore **analyses are analogous to those presented for claim 71 and are applicable for claim 79.**

39. In regards to claim 80, (See Fig. 12, Meeker shows decoder (inverse manner) structure in the encoder), therefore **analyses are analogous to those presented for claim 41 and are applicable for claim 80.**

40. Regarding claim 81, (See Fig. 12, Meeker shows decoder (inverse manner) structure in the encoder), therefore **analyses are analogous to those presented for claim 42 and are applicable for claim 81.**

41. Regarding claim 82, (See Fig. 12, Meeker shows decoder (inverse manner) structure in the encoder), therefore **analyses are analogous to those presented for claim 43 and are applicable for claim 82.**

Claim Rejections - 35 USC § 103

42. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

43. Claim 44-50 and 59-65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meeker (US Patent 5313298) in view of Gomila (JVT-H022).

44. In regards to claim 44, Meeker teaches everything according to claim 37 (see claim 37).

However, Meeker fails to disclose wherein said method further comprises the steps of: detecting the presence of film grain within the video data to be encoded, and enabling the application of said quantization curve only if film grain has been detected.

Conversely, Gomila discloses SEI message for film grain encoding. Gomila specifically discloses wherein said method further comprises the steps of:

detecting the presence of film grain within the video data to be encoded (Section 1, introduction [1], pg 1; Eyes resolve groups of grains, film grain is clearly noticeable in cinema and HD images; the encoder (Film grain remover) is the detector, see Fig. 2))**, and enabling the application of said quantization curve only if film grain has been detected** (Section 5-selection of film grain model. Within this section, Gomila teaches selecting a model for the detected film grain. The film grain model can't be selected if the film grain hasn't been detected. After a model has been selected, a logarithmic quantization curve is plotted, which is taught in section 6-experimental results, pg 9; the encoder (Film grain parameterizer) in fig2 is the means for enabling the application of said quantization only if film grain has been detected)**.**

Therefore, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify Meeker by providing specifically detecting presence of film grain, in order to preserve film grain (Pg 1-introduction, [2 and 3]) and by specifically enabling the application of said quantization curve only if grain has been detected, in order to remove the film grain noise but not remove the video signal itself (See fig. 2 and Fig. 6).

In the same field of endeavor, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to combine the teachings of Meeker and Gomila in order to obtain the invention as specified in claim 44.

45. **In regards to claim 45**, Meeker teaches everything according to claim 40 (See claim 40).

However, Meeker fails to disclose wherein said method further comprises the steps of: detecting the presence of film grain within the video data to be encoded, and enabling the application of said quantization curve only if film grain has been detected.

Conversely, Gomila discloses SEI message for film grain encoding. Gomila specifically discloses wherein said method further comprises the steps of:

detecting the presence of film grain within the video data to be encoded (Section 1, introduction [1], pg 1; Eyes resolve groups of grains, film grain is clearly noticeable in cinema and HD images; the encoder (Film grain remover) is the detector, see Fig. 2)**, and enabling the application of said quantization**

curve only if film grain has been detected (Section 5-selection of film grain model. Within this section, Gomila teaches selecting a model for the detected film grain. The film grain model can't be selected if the film grain hasn't been detected. After a model has been selected, a logarithmic quantization curve is plotted, which is taught in section 6-experimental results, pg 9; the encoder (Film grain parameterizer) in fig2 is the means for enabling the application of said quantization only if film grain has been detected)).

Therefore, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify Meeker by providing specifically detecting presence of film grain, in order to preserve film grain (Pg 1-introduction, [2 and 3]) and by specifically enabling the application of said quantization curve only if grain has been detected, in order to remove the film grain noise but not remove the video signal itself (See fig. 2 and Fig. 6).

In the same field of endeavor, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to combine the teachings of Meeker and Gomila in order to obtain the invention as specified in claim 45.

46. **In regards to claim 46**, Meeker teaches everything according to claim 41(see claim 41).

However, Meeker fails to disclose wherein said method further comprises the steps of: detecting the presence of film grain within the video data to be encoded, and enabling the application of said quantization curve only if film grain has been detected.

Conversely, Gomila discloses SEI message for film grain encoding. Gomila specifically discloses wherein said method further comprises the steps of:

detecting the presence of film grain within the video data to be encoded (Section 1, introduction [1], pg 1; Eyes resolve groups of grains, film grain is clearly noticeable in cinema and HD images; the encoder (Film grain remover) is the detector, see Fig. 2))**, and enabling the application of said quantization curve only if film grain has been detected** (Section 5-selection of film grain model. Within this section, Gomila teaches selecting a model for the detected film grain. The film grain model can't be selected if the film grain hasn't been detected. After a model has been selected, a logarithmic quantization curve is plotted, which is taught in section 6-experimental results, pg 9; the encoder (Film grain parameterizer) in fig2 is the means for enabling the application of said quantization only if film grain has been detected)))**.**

Therefore, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify Meeker by providing specifically detecting presence of film grain, in order to preserve film grain (Pg 1-introduction, [2 and 3]) and by specifically enabling the application of said quantization curve only if grain has been detected, in order to remove the film grain noise but not remove the video signal itself (See fig. 2 and Fig. 6).

In the same field of endeavor, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to combine the teachings of Meeker and Gomila in order to obtain the invention as specified in claim 46.

47. **In regards to claim 47**, Meeker teaches everything according to claim 37 (See claim 37).

However, Meeker fails to disclose wherein said method further comprises the steps of: detecting a degree or the presence of film grain within the video data to be encoded, and adjusting the parameters of said predefined quantization curve in accordance with the detection result.

Conversely, Gomila discloses SEI message for film grain encoding. Gomila specifically discloses wherein said method further comprises the steps of:
detecting a degree or the presence of film grain within the video data to be encoded (Section 1, introduction [1], pg 1; Eyes resolve groups of grains, film grain is clearly noticeable in cinema and HD images; the encoder (Film grain remover) is the detector, see Fig. 2)**, and adjusting the parameters of said predefined quantization curve in accordance with the detection result** (Pg 3, film grain parameterization section. Gomila's teaching of "different parameter" is equivalent to instant applicant's teaching of "adjusting the parameters". Furthermore, with respect to Fig. 2, Gomila discloses encoding process used to remove film grain, but generating film grain noise at the decoder by film grain

parameterization; the encoder in Fig. 2 is the setting means for adjusting. Also see pg 3, film grain parameterization).

Therefore, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify Meeker by providing specifically detecting presence of film grain, in order to preserve film grain (Pg 1-introduction, [2 and 3]) and by specifically adjusting the parameters of said predefined quantization curve in accordance with the detection result, in order to improve the removing of the film grain at the decoder (See fig. 2, pg 2 and p3-film grain removal section).

In the same field of endeavor, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to combine the teachings of Meeker and Gomila in order to obtain the invention as specified in claim 47.

48. In regards to claim 48, Meeker teaches everything according to claim 40 (See claim 40).

However, Meeker fails to disclose wherein said method further comprises the steps of: detecting a degree or the presence of film grain within the video data to be encoded, and adjusting the parameters of said predefined quantization curve in accordance with the detection result.

Conversely, Gomila discloses SEI message for film grain encoding. Gomila specifically discloses wherein said method further comprises the steps of:

detecting a degree or the presence of film grain within the video data to be encoded (Section 1, introduction [1], pg 1; Eyes resolve groups of grains, film grain is clearly noticeable in cinema and HD images; the encoder (Film grain remover) is the detector, see Fig. 2))**, and adjusting the parameters of said predefined quantization curve in accordance with the detection result** (Pg 3, film grain parameterization section. Gomila's teaching of "different parameter" is equivalent to instant applicant's teaching of "adjusting the parameters". Furthermore, with respect to Fig. 2, Gomila discloses encoding process used to remove film grain, but generating film grain noise at the decoder by film grain parameterization; the encoder in Fig. 2 is the setting means for adjusting. Also see pg 3, film grain parameterization).

Therefore, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify Meeker by providing specifically detecting presence of film grain, in order to preserve film grain (Pg 1-introduction, [2 and 3]) and by specifically adjusting the parameters of said predefined quantization curve in accordance with the detection result, in order to improve the removing of the film grain at the decoder (See fig. 2, pg 2 and p3-film grain removal section).

In the same field of endeavor, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to combine the teachings of Meeker and Gomila in order to obtain the invention as specified in claim 48.

49. **In regards to claim 49**, Meeker teaches everything according to claim 41(See claim 41).

However, Meeker fails to disclose wherein said method further comprises the steps of: detecting a degree or the presence of film grain within the video data to be encoded, and adjusting the parameters of said predefined quantization curve in accordance with the detection result.

Conversely, Gomila discloses SEI message for film grain encoding. Gomila specifically discloses wherein said method further comprises the steps of:
detecting a degree or the presence of film grain within the video data to be encoded (Section 1, introduction [1], pg 1; Eyes resolve groups of grains, film grain is clearly noticeable in cinema and HD images)**, and adjusting the parameters of said predefined quantization curve in accordance with the detection result** (Pg 3, film grain parameterization section. Gomila's teaching of "different parameter" is equivalent to instant applicant's teaching of "adjusting the parameters". Furthermore, with respect to Fig. 2, Gomila discloses encoding process used to remove film grain, but generating film grain noise at the decoder by film grain parameterization).

Therefore, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify Meeker by providing specifically detecting presence of film grain, in order to preserve film grain (Pg 1-introduction, [2 and 3]) and by specifically adjusting the parameters of said predefined

quantization curve in accordance with the detection result, in order to improve the removing of the film grain at the decoder (See fig. 2, pg 2 and p3-film grain removal section).

In the same field of endeavor, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to combine the teachings of Meeker and Gomila in order to obtain the invention as specified in claim 49.

50. **In regards to claim 50,** Meeker teaches everything according to claim 44 (See claim 44).

However, Meeker fails to disclose wherein said method further comprises the steps of: detecting a degree of film grain within the video data to be encoded, and adjusting the parameters of said predefined quantization curve in accordance with the detection result.

Conversely, Gomila discloses SEI message for film grain encoding. Gomila specifically discloses wherein said method further comprises the steps of:

detecting a degree of film grain within the video data to be encoded (Section 1, introduction [1], pg 1; Eyes resolve groups of grains, film grain is clearly noticeable in cinema and HD images; The encoder(Film grain remover) is the means for detecting, see Fig. 2)**, and adjusting the parameters of said predefined quantization curve in accordance with the detection result** (Pg 3, film grain parameterization section. Gomila's teaching of "different parameter" is equivalent to instant applicant's teaching of "adjusting the parameters".

Furthermore, with respect to Fig. 2, Gomila discloses encoding process used to remove film grain, but generating film grain noise at the decoder by film grain parameterization).

Therefore, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify Meeker by providing specifically detecting presence of film grain, in order to preserve film grain (Pg 1-introduction, [2 and 3]) and by specifically adjusting the parameters of said predefined quantization curve in accordance with the detection result, in order to improve the removing of the film grain at the decoder (See fig. 2, pg 2 and p3-film grain removal section).

In the same field of endeavor, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to combine the teachings of Meeker and Gomila in order to obtain the invention as specified in claim 50.

51. **Regarding claim 59, analyses are analogous to those presented for claim 44 and are applicable for claim 59.**

52. **Regarding claim 60, analyses are analogous to those presented for claim 45 and are applicable for claim 60.**

53. **Regarding claim 61, analyses are analogous to those presented for claim 46 and are applicable for claim 61.**

54. **Regarding claim 62, analyses are analogous to those presented for claim 47 and are applicable for claim 62.**

55. **Regarding claim 63, analyses are analogous to those presented for claim 48 and are applicable for claim 63.**

56. **Regarding claim 64, analyses are analogous to those presented for claim 49 and are applicable for claim 64.**

57. **Regarding claim 65, analyses are analogous to those presented for claim 50 and are applicable for claim 65.**

Conclusion

58. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent 6944226 B1 Lin et al. discloses the invention relating to of non-linear quantization.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LERON BECK whose telephone number is (571)270-1175. The examiner can normally be reached on Monday-Friday 7:30AM-5PM ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Ustaris can be reached on 571-272-7383. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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